

### § 86.090-3

*Total hydrocarbon equivalent* means the sum of the carbon mass emissions of non-oxygenated hydrocarbons, methanol, formaldehyde or other organic compounds that are separately measured, expressed as gasoline-fueled vehicle hydrocarbons. In the case of exhaust emissions, the hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1. In the case of diurnal and hot soak emissions, the hydrogen-to-carbon ratios of the equivalent hydrocarbons are 2.33:1 and 2.2:1, respectively.

*Trading* means the exchange of heavy-duty engine NO<sub>x</sub> or particulate emission credits between manufacturers.

*Useful life* means:

(a) For light-duty vehicles a period of use of 5 years or 50,000 miles, whichever first occurs.

(b) For a light-duty truck engine family, a period of use of 11 years or 120,000 miles, whichever occurs first.

(c) For an Otto-cycle heavy-duty engine family, a period of use of 8 years or 110,000 miles, whichever first occurs.

(d) For a diesel heavy-duty engine family:

(1) For light heavy-duty diesel engines, period of use of 8 years or 110,000 miles, whichever first occurs.

(2) For medium heavy-duty diesel engines, a period of use of 8 years or 185,000 miles, whichever first occurs.

(3) For heavy heavy-duty diesel engines, a period of use of 8 years or 290,000 miles, whichever first occurs.

(e) As an option for both light-duty truck and heavy-duty engine families, an alternative useful life period assigned by the Administrator under the provisions of paragraph (f) of § 86.090-21.

(f) The useful-life period for purposes of the emissions defect warranty and emissions performance warranty shall be a period of 5 years/50,000 miles whichever first occurs, for light-duty trucks, Otto cycle heavy-duty engines and light heavy-duty diesel engines. For all other heavy-duty diesel engines the aforementioned period is 5 years/100,000 miles, whichever first occurs. However, in no case may this period be less than the manufacturer's basic me-

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chanical warranty period for the engine family.

[55 FR 30612, July 26, 1990, as amended at 60 FR 34334, June 30, 1995; 62 FR 31233, June 6, 1997]

### § 86.090-3 Abbreviations.

(a) The abbreviations in § 86.078-3 remain effective. The abbreviations in this section apply beginning with the 1990 model year.

(b) The abbreviations in this section apply to this subpart, and also to subparts B, E, F, M, N, and P of this part, and have the following meanings:

DNPH—2,4-dinitrophenylhydrazine.

FEL—Family emission limit.

GC—Gas chromatograph.

HPLC—High-pressure liquid chromatography.

MeOH—Methanol (CH<sub>3</sub>OH).

Mg—Megagram(s) (1 million grams)

MJ—Megajoule(s) (1 million joules)

THCE—Total Hydrocarbon Equivalent

UV—Ultraviolet.

[55 FR 30613, July 26, 1990, as amended at 60 FR 34335, June 30, 1995]

### § 86.090-5 General standards; increase in emissions; unsafe conditions.

(a)(1) Every new motor vehicle (or new motor vehicle engine) manufactured for sale, sold, offered for sale, introduced, or delivered for introduction to commerce, or imported into the United States for sale or resale which is subject to any of the standards prescribed in this subpart shall be covered by a certificate of conformity issued pursuant to §§ 86.090-21, 86.090-22, 86.090-23, 86.090-29, 86.090-30, 86.079-31, 86.079-32, 86.079-33, and 86.082-34.

(2) No heavy-duty vehicle manufacturer shall take any of the actions specified in section 203(a)(1) of the Act with respect to any Otto-cycle or diesel heavy-duty vehicle which uses an engine which has not been certified as meeting applicable standards.

(3) Notwithstanding paragraphs (a)(1) and (2) of this section, a light or heavy duty motor vehicle equipped with an engine certified to the nonroad provision of 40 CFR part 89 may be sold, offered for sale or otherwise introduced into commerce by a motor vehicle manufacturer to a secondary manufacturer if the motor vehicle manufacturer obtains written assurance from